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REPORT

OF THE

JOINT SPECIAL COMMITTEE

OF THE

SELECT AND COMMON COUNCILS

ON

STEAM FIRE ENGINES.

NOVEMBER 2, 1854.

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REPORT.

TO THE SELECT AND COMMON COUNCILS:

Gentlemen—The undersigned, Select Committee, appointed to investigate the subject of Steam Fire Engines, respectfully report having made inquiry, by which they learned the efficiency and utility of engines worked by steam for extinguishing fires. Yet, with all the statistical information, your Committee deemed the subject of such importance as to require the most searching investigation. We therefore visited Cincinnati, Ohio, by which we had the opportunity of practical demonstration.

In making our report upon this subject, we are aware of the prejudice to be encountered in this city, growing out of the long established organization of our voluntary Fire Department, which, we are free to admit, is second to none other established on a similar basis, and that our firemen are deserving of the highest praise for the energy and self-sacrificing disposition they have always evinced to save the lives and property of our citizens. Hence the object of our investigation is more for the purpose of considering the apparatus used, than the organization of the department, though we believe that very great change is needed in this particular, in consequence of the shameful abuses of this laudable enterprise. But this Committee do not feel warranted in taking the responsibility of suggesting so important a matter, as that was not the purpose for which they were appointed.

At the time of the organization of the present system, and until recently, our fire apparatus was not only superior to any other in the country, but fully adequate to all the demands our utmost necessities required. But in consequence of the change in style of building, which, at the present, is of much more extensive character, especially as regards the height to which they are carried, renders it indispensably necessary that some change should be made in the apparatus for protecting property against conflagration.

Whether engines shall be worked by men or steam, is a question for the necessities of the case to settle. That we need greater power in many cases, is admitted, and until some new discovery shall have been made, it is evident that machines cannot be constructed with sufficient power, (when worked by men,) to meet the exigencies of the case, under circumstances such as occur in extensive conflagrations in such parts of the city as are built up with houses of modern style, while in other places the present engines, worked as they now are, will, under proper control, prove as efficient as they have done, and will be indispensable as a part of our Fire Department.

The superiority of engines worked by steam must be obvious to every one, from the fact that they are more powerful, throw a much larger body of water with greater force, and that in continuous streams.

One fact must have been noticed by every one who has witnessed the working of our present engines, that when buildings of great height have been on fire, the water thrown on to them has been merely the spray, which, by action of the heat, is immediately condensed and changed to steam, which, if it does not increase the flame, at least does not diminish it. Therefore such places or parts of buildings must consume. And in working our engines under such pressure, it is utterly impossible for men to continue labor but for a very short time. Hence they must cease playing, and the fire rages for a time without interruption.

The zeal and rivalry of our firemen stimulate them to exertion greater than they are able to endure, and in very many cases ruin their constitutions, and lays the foundation of disease which results in premature death. All such facts are well known and greatly lamented. Hence, the inquiry of every philanthropist should be, cannot these things be remedied by adopting something that will relieve from such excessive labor and consequent fatal results, compared with which financial considerations are nothing, as protection of health and preservation of morals should be our primary object, in order to secure the happiness and safety of our fellow citizens. In witnessing the operations of the Steam Fire Engine of Cincinnati, your Committee were convinced that the necessities of the people can be met, and most of the evils avoided.

Through the kindness of Miles Greenwood, Esq., Chief Engineer of the Fire Department of Cincinnati, your Committee were favored with opportunity for thorough investigation of the apparatus, as well as the working of the entire department. Having been invited by Mr. Greenwood, we proceeded to the house where the steam engines are kept. After examining the machines, (of which they have two,) we found them in readiness, (as they are always kept,) water in the tank, fuel in the fire box, the horses harnessed and the men in waiting. The torch was applied to the fuel, horses attached, and we proceeded in a fast trot to a point about half a mile distant, and in nine minutes from the time of applying the fire, water was being drawn from a reservoir and thrown upon the Mechanics Institute, a building one hundred and sixteen feet high, through an inch and a quarter nozzle. The engine referred to is named the "Citizens' Gift," it having been purchased by private subscription at a cost of $10,000. It is large, and weighs about tons, but is easily drawn by four horses, and can be driven by steam when desired. It plays six streams, and works the whole number with as much ease as one. The water was thrown with such force and constancy as to render it impossible for a fire to continue under its deluging force. At a signal given by one tap of the city bell, the remainder of the department started for the point at which we had assembled, and in five minutes from the time of the signal being given, the entire department, consisting of twenty-nine different machines, including engines, hose carriages and hook and ladder companies, were on the ground, backed up against the curb. They were each drawn by two horses, and some of them had come a distance of nearly two miles, showing the most perfect system and arrangement in the department, which cannot fail to receive the approval of this community, as it does of that. Of course the system is not attributable to the character of the apparatus, yet it has done much to suggest the adoption of such an organization.

We do not deem it necessary to enter into detail as to the mechanical arrangement of the Steam Fire Engines of Cincinnati, although we took great pains to ascertain the principle of their construction, and especially the highly important and perhaps, most peculiar feature of producing steam so rapidly as to be ready to work in so short a time, and can always be ready to play by the time they reach a fire, though it should be only a few squares distant.

The principle may be applied to engines of almost any size, large or small; and the cost will be in proportion to the dimensions of the engine, ranging, say from four to ten thousand dollars. The cost of running and working such apparatus will be found, by reference to the report of the Cincinnati Fire Department, to be very economical.

During our stay in Cincinnati, we had the opportunity to witness it in operation at a fire which broke out in some old frame houses, situated alongside of a lumber yard, affording every opportunity for a large conflagration. But the facility with which the department was directed, and efficiency of the Steam Fire

Engine, soon brought the fiery element under subjection, and poured in such a constant and powerful volume of water, as to defy its fury, notwithstanding the locality of the fire was poorly supplied with water, and the steam engine was some six hundred feet distant from the fire. After witnessing such experiments, with the unanimous testimony of all with whom we conversed, your Committee cannot do less than recommend that at least two similar engines should be procured immediately for this city, believing, as we do, that an outlay of money for such purpose would be of great advantage, and would meet the approbation of our citizens generally.

We would here state that we saw two engines being constructed in Cincinnati, one being made to order by Mr. Latta, for the city of Boston, the other by Mr. Shawk, both of which will pass through our city, and we will endeavor to have them tried, so they can be witnessed by all who feel an interest in the matter.

All of which is respectfully submitted, with the following Resolution:

Resolved, That the Joint Select Committee here annexed, be and they are hereby authorized to obtain plans and proposals for two Steam Fire Engines, and report the same to Councils.

B. R. MILLER,
J. L. HUTCHINSON,
A. M. EASTWICK,
JAS. J. BOSWELL.